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UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/401,293	09/23/1999	MASAHIRO HAYAMA	Q55778	4480

7590 02/12/2004		EXAMINER
SUGHRUE MION ZINN MACPEAK & SEAS		ANDERSON, MATTHEW D
2100 PENNSYLVANIA AVENUE NW		
WASHINGTON, DC 200373202		

ART UNIT	PAPER NUMBER
2186	18

DATE MAILED: 02/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)
	09/401,293	HAYAMA, MASAHIRO
	Examiner	Art Unit
	Matthew D. Anderson	2186

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>*22 December 2003*</u>.
2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
     closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>*30-39*</u> is/are pending in the application.
      4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>*30-39*</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on <u>*12/23/02*</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.
      Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
      Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
      a)☒ All   b)☐ Some * c)☐ None of:
          1.☒ Certified copies of the priority documents have been received.
          2.☐ Certified copies of the priority documents have been received in Application No. _____.
          3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
               application from the International Bureau (PCT Rule 17.2(a)).
      * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
      Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
      Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   In response to the amendment filed 9/8/03: claims 1-29 have been canceled; and new

claims 30-39 have been added.

Claim Objections

2.   Claims 30, 33, 35, 37, and 39 are objected to because of the following informalities: The

terms "renew" and "step" seem to correspond to earlier mentioned "rewrite" and "stage". The

Examiner asks for these terms to be changed accordingly for the sake of consistency.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4.   Claims 30-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Watanabe *et al.*

(US Patent 5,590,306).

5.   With respect to claims 30, 32, 33, 35, and 37-39, Watanabe *et al.* disclose a rewrite

program area for storing a program for a rewriting processing procedure for said memory; and a

controller for forming a plurality of flag areas locally in said flash memory when the rewriting

program is stored in external storage means or said rewrite program area is rewritten into said

flash memory, performing determination of completion of a plurality of stages of rewriting

processing or determination of whether the plurality of stages are good or bad and renews

recording results of the determination of completion of each stage or results of determination of

whether each stage is good or bad into said flag area a step at a time, as recited in column 2, line

61 through column 4, line 5, and figures 15-17, as shown by the setting and resetting of the read

protect bit and recording termination flag.

6.   With respect to claims 31, 34, and 36, Watanabe *et al.* disclose:

the memory including a plurality of blocks, each of which is an erasable unit and includes

a data area and a flag area, as shown in figure 11;

the controller mapping the data areas of the plurality of blocks to successive addresses, as

recited in column 13, lines 58-62.

7.   With respect to claims 32, Watanabe *et al.* disclose the controller further determining if

the rewriting processing was performed without interruption by comparing a value read from a

flag area to an expected value, as recited in columns 4 and 5.

8.   With respect to claim 35, Watanabe *et al.* disclose making the comparison when the

power supply is made available after the rewriting is complete, by teaching in column 2, lines

45-55, providing a memory card management system in which even if there happen situations

such as a hot-line ejection of a memory card or unexpected turn-off of the power supply during

writing operation for data or management information into the memory card, the host end is able

to identify, at the time of resumption of writing of data and reproduction of data, which data or

management information are defective.

Claim Rejections - 35 USC § 103

9.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

10.   Claims 31, 34, and 36are rejected under 35 U.S.C. 103(a) as being unpatentable over

Watanabe *et al.* and Sukegawa *et al.* (US Patent # 5,603,001).

11.   With respect to claims 31, 34, and 36, Sukegawa *et al.* disclose mapping the data areas of

the plurality of block to successive addresses by teaching in column 15, lines 55-60, that

consecutive disk addresses are mapped in the ROM and the flash EEPROMs.

12.   It would have been obvious to one of ordinary skill in the art, having the teachings of the

Watanabe *et al.* and Sukegawa *et al.* before him at the time the invention was made, to modify

the flash memory refreshing taught by Watanabe *et al.*, to include the consecutive address

mapping to flash, as taught by Sukegawa *et al.*, in order to aid in error detection and correction,

as taught by Sukegawa *et al.*.

Response to Arguments

13.   Applicant's arguments filed 12/22/03 have been fully considered but they are not

persuasive.

14.   With respect to the independent claims, the Applicant alleges that Watanabe does not

teach a controller that renews recording results of a determination of completion of each stage of

rewriting processing or results of a determination of whether each stage is good or bad into flag areas a step at a time. The Examiner assumes this arguments rests mainly with the multiple steps, or stages, in the claims, as the following arguments seem to show that Watanabe has only one stage wherein the read protect bit is set. Watanabe, though, shows in figure 15 and column 24, that a recording or rewriting process involves not only the setting and resetting of the read protect bit (as argued by the Applicant), but also upon completion of the recording, a recording termination flag. The setting and resetting of these two flags could be considered "stages" of the recording process. The Examiner recommends possibly amending the claims to more specifically discuss the stages or their corresponding flag states.

Conclusion

15.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew D. Anderson whose telephone number is (703) 306-5931. The examiner can normally be reached on Monday-Friday, 2nd Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Kim can be reached on (703) 305-3821. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Matthew D. Anderson
February 4, 2004